

# EM20 Technical Specifications and User Manual



- Frequency range: 1GHz; Field strength calibration range: 5V/m  $\pm 0.5\text{dB}$  (20°C ~30°C);
- This field strength calibrator is suitable for calibrating the field strength of all kinds of electromagnetic field strength meters with probe meridional size below 65mm, as well as 360 degrees isotropy detection and verification of electromagnetic field probe;
- Insert the antenna probe into the circular hole of calibrator in axial parallel as shown in figure, keep the geometric center of the electromagnetic field probe overlap with the geometric center of calibrator circular hole;
- Avoid using the calibrator in high power RF radiation environment;
- Please keep the calibrator over 1m away of human body;
- Be aware of device battery voltage warning when calibrating, low battery voltage can cause inaccurate calibration;
- The frequency range and field strength calibration range can be customized;
- Powered by 4 AA battery, 6V or AC line adaptor, 12V, flexible and convenient.
- Calibration tuning potentiometer hole (adj) is specially used by professionals to calibrate field strength.

## User Manual of field strength calibrator

- ① . After claibration, this field strength calibrator is suitable for calibrating the field strength of all kinds of electromagnetic filed strength meters with probe meridional size between 60mm to 66mm.
- ② . Place the antenna probe into the circular hold of calibrtaior to ensure the reliabiity of claibration as shown in figure(EM9N), suggest to make position holder in case the antenna probe meridional size is smaller than the circular hold of EM20 calibrator.
- ③ . Place the calibrator and electromagnetic filed strength meter on table horizontally, insert antenna probe vertically into the circular hole of calibrator and power on calibrator(select to power by internal battery or AC line adaptor). Power on electromagnetic filed strength meter and wait for stable result data, if the result data changes greatly, please check the electromagnetic environment or change another location until get stable result data.

**(NOTE: Please keep the calibrator over 1m away of humanbody, and in no electric appliance environment(IE: computer) during the calibration.)**



- ④ . EM20 supports the calibrtaiion of electromagnetic filed strength meter from different vendors



DEVISER EM9N



MCRRAD PRO5



WAVE CONTROL SMP2



NARDA NBM-550 / NBM-520

- ⑤ . Isotropy index testing of antenna probe

Place the antenna probe vertically into the circular hole of calibrator, or parallel to the side of the circular hole as shown in figure, rotate electromagnetic field strength meter 360 degrees, record the result data in all angles, the average difference value between the result data and standard value is the "isotropy index".

